

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1.-17. (Canceled).

Claim 18. (Currently Amended)      A dispenser assembly comprising:  
a dispenser chip including a dispenser body including ~~a~~ one or more vertical  
channels; and  
a sample chip having a base and a sample structure, the sample structure  
comprising ~~a~~ one or more pillars and a sample surface, wherein the one or more vertical channels  
of the dispenser chip ~~is~~ are cooperatively structured to receive the one or more pillars.

Claim 19. (Original)    The dispenser assembly of claim 18 further comprising:  
a seal member between the dispenser body and the base of the sample chip.

Claims 20-37. (Canceled).

**Claims 38 - 43 (canceled)**

Claims 44.-55. (Canceled)

Claim 56. (Previously Presented)      The dispenser assembly of claim 18 wherein  
the sample chip comprises silicon.

Claim 57. (Currently Amended)      The dispenser assembly of claim 18 wherein  
the sample chip further comprises ~~a~~ one or more capture agents on the sample surface.

Claim 58. (Previously Presented) The dispenser assembly of claim 18 wherein the dispenser body comprises silicon.

Claim 59. (Currently Amended) The dispenser assembly of claim 18 wherein the sample chip further comprises ~~a~~ one or more capture agents on the sample surface, and wherein ~~an~~ one or more analytes ~~is~~ are present in the one or more vertical channels in the dispenser chip.

Claim 60. (Previously Presented) The dispenser assembly of claim 18 wherein the sample chip comprises more than 100 pillars.

Claim 61. (Previously Presented) The dispenser assembly of claim 18 wherein the one or more pillars ~~has~~ have an aspect ratio greater than about 1.

Claim 62. (New) The dispenser assembly of claim 18 wherein the sample chip comprises more than 10 pillars.

Claim 63. (New) The dispenser assembly of claim 18 wherein the pillar pitch is 500 microns or less.

Claim 64. (New) A dispenser assembly comprising:  
a dispenser chip including a dispenser body including one or more vertical channels; and

a sample chip having a base and a sample structure, the sample structure comprising one or more pillars and a sample surface, wherein the one or more vertical channels of the dispenser chip are cooperatively structured to receive the one or more pillars; and  
wherein the base and the one or more pillars are composed of the same material.

Claim 65. (New) The dispenser assembly of claim 64 further comprising:  
a seal member between the dispenser body and the base of the sample chip.

Claim 66. (New)      The dispenser assembly of claim 64 wherein the sample chip comprises silicon.

Claim 67. (New)      The dispenser assembly of claim 64 wherein the sample chip further comprises one or more capture agents on the sample surface.

Claim 68. (New)      The dispenser assembly of claim 64 wherein the dispenser body comprises silicon.

Claim 69. (New)      The dispenser assembly of claim 64 wherein the sample chip further comprises one or more capture agents on the sample surface, and wherein one or more analytes are present in the one or more vertical channels in the dispenser chip.

Claim 70. (New)      The dispenser assembly of claim 64 wherein the sample chip comprises more than 10 pillars.

Claim 71. (New)      The dispenser assembly of claim 64 wherein the sample chip comprises more than 100 pillars.

Claim 72. (New)      The dispenser assembly of claim 64 wherein the one or more pillars have an aspect ratio greater than about 1.

Claim 73. (New)      Claim 70. (New)      The dispenser assembly of claim 64 wherein the pillar pitch is 500 microns or less.

Claim 74. (New)      A dispenser assembly comprising:  
a dispenser chip including a dispenser body including one or more vertical channels; and

a sample chip having a base and a sample structure, the sample structure comprising one or more pillars and a sample surface, wherein the one or more vertical channels of the dispenser chip are cooperatively structured to receive the one or more pillars; and  
wherein the one or more pillars are composed of a material other than a gel.

Claim 75. (New)      A dispenser assembly comprising:  
a dispenser chip including a dispenser body including one or more vertical channels; and

a sample chip having a base and a sample structure, the sample structure comprising one or more pillars and a sample surface, wherein one or more the vertical channels of the dispenser chip are cooperatively structured to receive the one or more pillars; and further comprising one or more polypeptides either present in the one or more vertical channels or bound to the surface of the one or more pillars.

Claim 76. (New)      A dispenser assembly comprising:  
a dispenser chip including a dispenser body including one or more vertical channels; and

a sample chip having a base and a sample structure, the sample structure comprising one or more pillars and a sample surface, wherein one or more the vertical channels of the dispenser chip are cooperatively structured to receive the one or more pillars; and wherein the one or more pillars comprise biomolecules other than a polynucleotide.

Claim 77. (New)      The dispenser assembly of claim 76 further comprising:  
a seal member between the dispenser body and the base of the sample chip.

Claim 78. (New)      The dispenser assembly of claim 76 wherein the sample chip comprises silicon.

Claim 79. (New)      The dispenser assembly of claim 76 wherein the sample chip further comprises one or more capture agents on the sample surface.

Claim 80. (New)      The dispenser assembly of claim 76 wherein the dispenser body comprises silicon.

Claim 81. (New)      The dispenser assembly of claim 76 wherein the sample chip further comprises one or more capture agents on the sample surface, and wherein one or more analytes are present in the one or more vertical channels in the dispenser chip.

Claim 82. (New)      The dispenser assembly of claim 76 wherein the sample chip comprises more than 10 pillars.

Claim 83. (New) The dispenser assembly of claim 76 wherein the sample chip comprises more than 100 pillars.

Claim 84. (New) The dispenser assembly of claim 76 wherein the one or more pillars have an aspect ratio greater than about 1.

Claim 85. (New) The dispenser assembly of claim 76 wherein the pillar pitch is 500 microns or less.

Claim 86. (New) A dispenser assembly comprising:  
a dispenser chip including a dispenser body including one or more vertical channels; and  
a sample chip having a base and a sample structure, the sample structure comprising one or more pillars and a sample surface, wherein one or more the vertical channels of the dispenser chip are cooperatively structured to receive the one or more pillars; and  
wherein the one or more vertical channels contain a liquid other than a gel.

Claim 87. (New) The dispenser assembly of claim 86 further comprising:  
a seal member between the dispenser body and the base of the sample chip.

Claim 88. (New) The dispenser assembly of claim 86 wherein the sample chip comprises silicon.

Claim 89. (New) The dispenser assembly of claim 86 wherein the sample chip further comprises one or more capture agents on the sample surface.

Claim 90. (New) The dispenser assembly of claim 86 wherein the dispenser body comprises silicon.

Claim 91. (New) The dispenser assembly of claim 86 wherein the sample chip further comprises one or more capture agents on the sample surface, and wherein one or more analytes are present in the one or more vertical channels in the dispenser chip.

Claim 92. (New)      The dispenser assembly of claim 86 wherein the sample chip comprises more than 10 pillars.

Claim 93. (New)      The dispenser assembly of claim 86 wherein the sample chip comprises more than 100 pillars.

Claim 94. (New)      The dispenser assembly of claim 86 wherein the one or more pillars have an aspect ratio greater than about 1.

Claim 95. (New)      The dispenser assembly of claim 86 wherein the pillar pitch is 500 microns or less.

Claim 96 (New)      A dispenser assembly comprising:  
a dispenser chip including a dispenser body including one or more vertical channels; and

a sample chip having a base and a sample structure, the sample structure comprising one or more pillars and a sample surface, wherein the one or more vertical channels of the dispenser chip are cooperatively structured to receive the one or more pillars;

wherein a fluid introduced into the one or more channels can become in contact with the pillar surface or surfaces when the dispenser chip cooperatively engages the pillars.